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Fact Sheet for the Chairman,
Subcommittee on Energy and Power,
Committee on Energy and Commerce,
House of Representatives

August 1988

ARMY VEHICLES

Procurement of 2-1/2-Ton Truck Engines

GAO/NSIAD-88-215FS

GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-231261

August 15, 1988

The Honorable Philip R. Sharp
Chairman, Subcommittee on
Energy and Power
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

In accordance with your request of March 11, 1988, and subsequent agreements with representatives of your office, we reviewed the Army's purchases of engines for its 2-1/2-ton truck. Specifically, you requested that we obtain information concerning the

- Army's plans for a new family of medium tactical vehicles (which includes the 2-1/2-ton truck);
- Environmental Protection Agency's (EPA) position on the Army's adherence to federal pollution standards for the engines; and
- status of the Army's plans to replace the current engines in the 2-1/2-ton truck with new ones.

The Army considers the medium truck fleet, which includes the 2-1/2-ton truck, to be the "workhorse" of its tactical wheeled vehicle fleet. Although it fills a wide variety of roles essential to accomplishing the missions of most military organizations, this fleet is aging rapidly. The 65,000 2-1/2-ton trucks currently in the inventory have an average age of about 19 years, and many of them are in poor operating condition. The Army is currently retiring 2-1/2-ton trucks from the inventory at a rate of about 1-1/2 percent per year and has not procured any new trucks since 1977.

The Army has been using the same basic 2-1/2-ton truck engine to power the 2-1/2-ton truck fleet since the early 1960s. Since 1969 the Army has competitively awarded contracts to Hercules Engines, Inc. (formerly White Engines, Inc.), of Canton, Ohio, to produce the 2-1/2-ton truck engine. According to the Army, only Hercules has responded to requests for bids, primarily because it owns the production tooling. This engine is based on an old technical data package that was not designed to meet the emission standards established by EPA for 1988.

To address the aging fleet problem for the 2-1/2-ton trucks, the Army plans to acquire new vehicles. This acquisition program, known as the

Family of Medium Tactical Vehicles (FMTV), will also help reduce existing shortages in the 2-1/2-ton truck fleet. These vehicles will be commercially manufactured trucks modified for military use and will use commercial components. The components will include a competitively procured commercial engine that will meet EPA emission standards in effect during the first year of engine manufacture.

The Army's current acquisition plan for the FMTV program, approved in March 1988, shows full production beginning in August 1992 and the first units being equipped with the new trucks by October 1992. Current procurement data indicates that 20,362 2-1/2-ton trucks will be bought by calendar year 2005.

An important aspect of today's engines is that they must comply with the Clean Air Act. EPA, the agency that administers the Clean Air Act, sets engine emission standards that engine manufacturers must meet. EPA set new emission standards in 1988, and in 1990, 1991, and 1994 more stringent standards are scheduled. In general, EPA officials told us that the emission standards in effect in the year when production begins must be met. The act permits an engine manufacturer to request EPA to grant exemptions to the standards for national security reasons. However, a government agency charged with responsibility for national defense, like the Army, must endorse the request.

Because the current 2-1/2-ton truck engine does not meet EPA's 1988 emission standards, the Army wanted to ensure continued support of the engine until implementation of the new FMTV plan. Therefore, on June 30, 1987, the Army requested that EPA approve a "Conditional National Security Exemption" from the 1988 and future emission standards for the purchase of 15,000 2-1/2-ton truck engines over a 5-year period.

On September 30, 1987, EPA granted the Army a 1-year exemption, allowing the Army to purchase 3,000 2-1/2-ton truck engines. At the same time, EPA told the Army that before it would grant any further exemptions for the purchase of the remaining 12,000 engines, the Army would have to (1) provide a written commitment not to procure any of the currently configured engines after calendar year 1991 or (2) establish a program to develop a cleaner configuration for the current engine.

In response to EPA's request, the Army conducted a study in early 1988 to help decide how best to support the medium tactical wheeled vehicle

fleet with engines and, at the same time, resolve the impact of EPA emission standards on the Army's replacement engine requirements. The study evaluated several alternatives, including (1) obtaining a permanent exemption from EPA emission standards or simply discontinuing procurement of the existing engines, (2) designing improvements to the existing engine that would result in a cleaner engine configuration, or (3) installing new replacement engines as the current ones fail.

After considering the cost of each alternative and logistics and readiness factors, together with the need to meet the 1988-90 emission standards, the Army selected the third alternative. In addition, it plans to continue to repair salvageable engines.

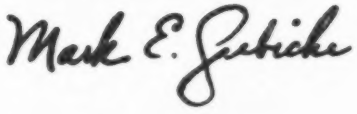
The Army believes that this approach supports the EPA option not to procure the current engine after calendar year 1991; the new engine is expected to be available by then. Army officials said that the Army's Deputy Chief of Staff for Logistics approved this approach on June 24, 1988, and that the Department of the Army is expected to approve the new replacement engine program for the 2-1/2-ton truck by September 1988.

In conducting our work, we interviewed personnel from the Army's Deputy Chief of Staff for Logistics and EPA, Washington, D.C., and the U.S. Army Tank and Automotive Command, Warren, Michigan. We reviewed records and studies relating to the Army's decision-making process in deciding how best to support the 2-1/2-ton truck with engines that meet EPA emission standards. We did not verify any cost figures used in the cost studies.

We discussed the results of our audit with Department of the Army and EPA officials but, as requested, we did not obtain their official comments. As arranged with representatives of your office, we plan no further distribution of this report until 7 days from its issue date unless you publicly announce its contents earlier. At that time, we will send copies to

interested parties and make copies available to others upon request. If we can assist you further, please contact me at 275-4133.

Sincerely yours,



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